

GRAPHIC EQUALIZER/  
AMPLIFIER

# OWNER'S MANUAL

Thank you for purchasing this PIONEER product. Before attempting operation, be sure to read this manual.

Nous vous remercions d'avoir acheté cet appareil PIONEER. Avant de l'utiliser, prendre soin de lire ce manuel.

Muchas gracias por la adquisición de este producto PIONEER. Antes de tratar de operarlo, lea atentamente este manual.

شكرا لك على شرائك جهاز بايونير هذا. قبل محاولة تشغيله تأكد من قراءة هذا الدليل.



BP-880

 **PIONEER®**

BP-880 BP-650  
BP-450

## Features

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### **A Maximum Output of 20W × 4 Channel High Power (BP-880)**

Sound with power to spare is provided by 20W × 4 channel high power. A BPTL circuit ensures low distortion as well as compensation for frequency characteristics.

### **Either 4-speaker system or 2-speaker high-power system can be selected. (BP-650)**

When using the 4-speaker system, front and rear volume can be adjusted with the fader control to produce concert hall presence. Also, the BPTL method gives powerful force to the 25W × 2 output of the 2-speaker high-power system.

### **A Maximum Output of 25W × 2 Channel High Power (BP-450)**

Sound with power to spare is provided by 25W × 2 channel high power. A BPTL circuit ensures low distortion as well as compensation for frequency characteristics.

### **7 Band Level Control**

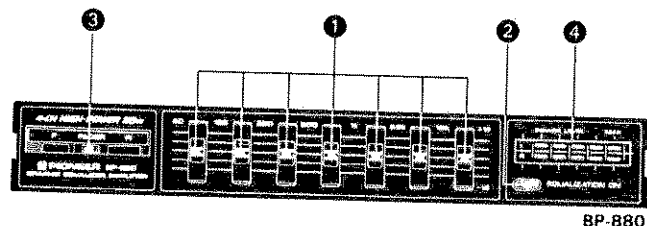
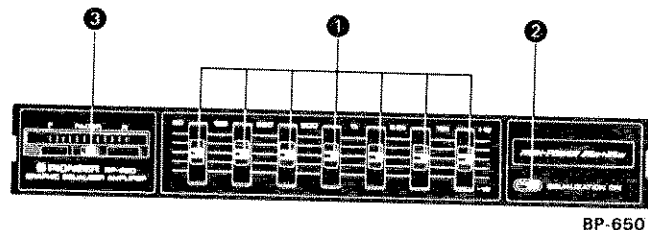
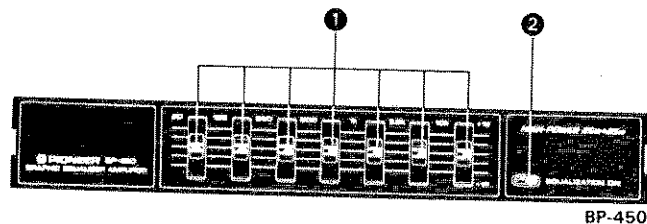
Level can be adjusted at each of the following frequencies: 60Hz, 125Hz, 250Hz, 500Hz, 1kHz, 3.5kHz and 10kHz to obtain high quality sound not possible with an ordinary tone control. Thus, you can adjust the system output to match your car's acoustic characteristics.

### **Built-In Fader Control (BP-880, BP-650)**

The volume of the front and rear speakers can be adjusted to suit the seating conditions in the vehicle.

### **Level Indicator (BP-880)**

5-point LED level indicator displays output levels of the left and right channels.



## 1 Equalizer Control

Slides up and down to allow adjustment to suit both the music and individual tastes. Pressing the equalization switch causes each indicator to illuminate.

## 2 Equalization Switch

Press to activate the equalizer control function and illuminate the indicator on the equalizer control lever.

## 3 Fader Control (BP-880, BP-650)

Adjusts the sound balance between the front and rear speakers when the unit is being used in a 4-speaker system. As the control is moved to the left, the rear speakers are faded out until the front speakers are operating alone; as the control is moved to the right, the front speakers are faded out until the rear speakers are operating alone.

### Important Note (BP-880)

- When listening to a 2-speaker system, position this lever at dead center.

## 4 Level Indicator (BP-880)

Green and red indicators illuminate corresponding to the left/right output levels.

- If your car stereo has a fader control, set it to the center position.
- Changes in low-pitched sounds may not be discernible even when the 60Hz frequency level is adjusted if the program source does not include components in the 60Hz vicinity or if the small diameter speakers are used.

## Connecting the units

- Before making final connections, make temporary connections then operate the unit to check for any connecting cord problems.
- Be sure to connect only a single component as shown in the connection diagram. If two or more components are connected, internal circuitry may be damaged or an accident may occur. (BP-880, BP-650)
- When using this unit in combination with a car stereo equipped with RCA pin jacks, see the section entitled "When combined with a car stereo with RCA pin jacks." (BP-880, BP-650)
- Be aware that connection is different between 2-speaker system and 4-speaker system. Failure to follow the wiring diagram may cause considerable loss of power even when fader control is at the center position. (BP-650)
- A special BPTL circuit is used to be sure that you do not connect the speakers directly to ground nor join the left and right speaker (-) leads.
- For detailed information concerning connections between different components and this unit consult their respective owner's manuals and follow those recommendations precisely.
- Wire all connecting cords so that they stay well clear of high-temperature areas such as the heater exhaust port.
- Be sure to properly connect the color-coded leads. Failure to do so can cause malfunctions.

### Input Selector (BP-880, BP-650)

Be sure to set the input selector before wiring. (Fig. 1)

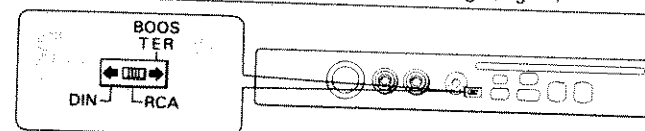


Fig. 1

**DIN:** When connecting the unit to a car stereo with DIN cord.

**RCA:** When connecting the unit to a car stereo with RCA pin jacks.

**BOOSTER:** When connecting the unit to a regular car stereo (unequipped with RCA pin jacks).

### Gain Control

When gain adjustment is required, make adjustments with a screwdriver. (Fig. 2)

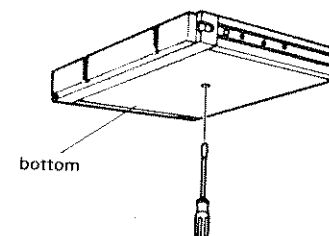


Fig. 2

## BP-650 (2-Speaker System)

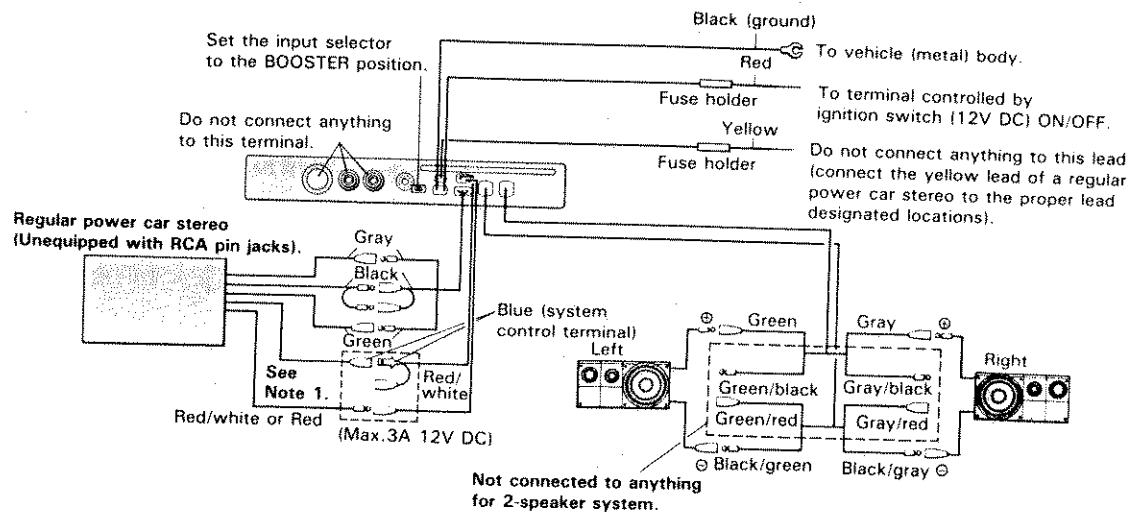
### When Combined with a Regular Car Stereo (Unequipped with RCA pin jacks)

#### Note 1

- If the car stereo has a blue lead (system control terminal), connect it to the blue lead (male) of this unit, without connecting anything to the red/white lead of this unit. If the car stereo does not

have a blue lead (system control terminal), connect the red/white lead or red lead of the car stereo to the red/white lead of the unit.

- The blue lead of a PIONEER car stereo to be connected to the unit may have an auto-antenna terminal. If it does, it cannot be connected to the blue lead (system control terminal) of the unit, so read the section on connections in the car stereo's owner's manual. If no sound comes from the speakers during the playing of a tape after they have been connected to the unit, connect the red/white or red lead of the car stereo to the red/white lead of the unit.



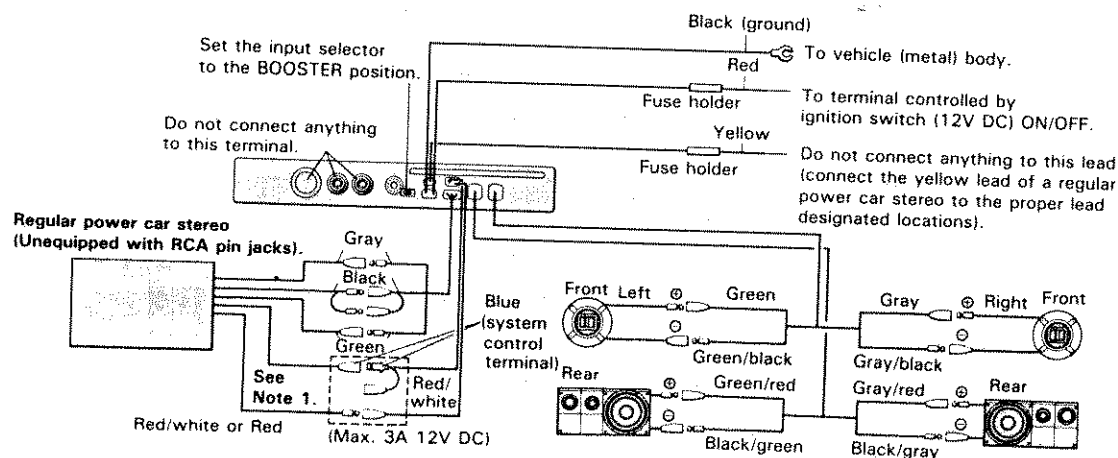
## When Combined with a Regular Car Stereo (Unequipped with RCA pin jacks)

- When using the BP-880 in a 2-speaker system, use either the front speaker cords or the rear speaker cords for connection as appropriate.

### Note 1

- If the car stereo has a blue lead (system control terminal), connect it to the blue lead (male) of this unit, without connecting anything to the red/white lead of this unit. If the car stereo does not

- have a blue lead (system control terminal), connect the red/white lead or red lead of the car stereo to the red/white lead of the unit.
- The blue lead of a PIONEER car stereo to be connected to the unit may have an auto-antenna terminal. If it does, it cannot be connected to the blue lead (system control terminal) of the unit, so read the section on connections in the car stereo's owner's manual. If no sound comes from the speakers during the playing of a tape after they have been connected to the unit, connect the red/white or red lead of the car stereo to the red/white lead of the unit.



## When Combined with a Car Stereo with RCA Pin Jacks

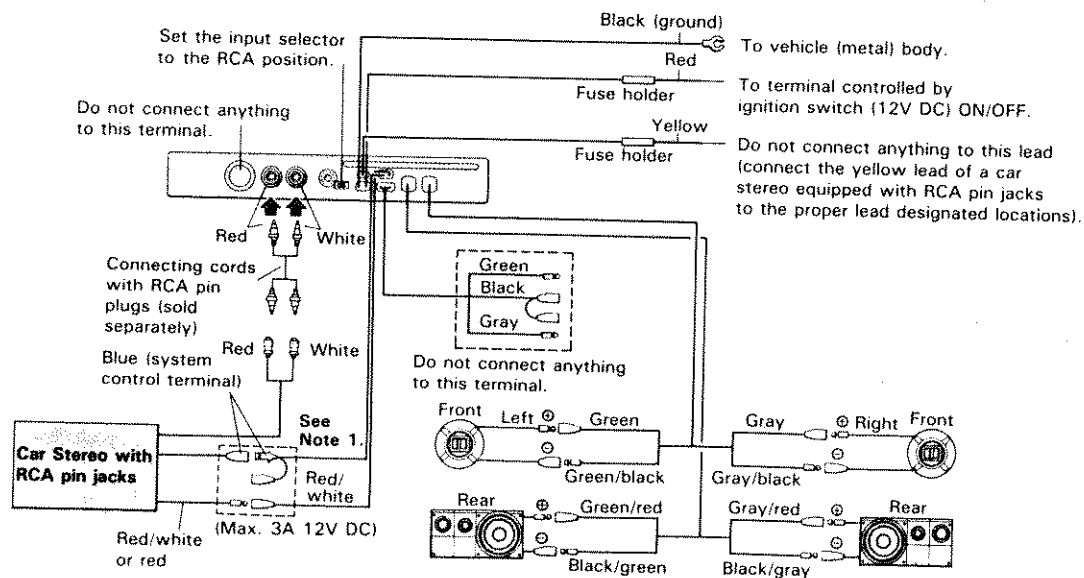
- When using the BP-880 in a 2-speaker system, use either the front speaker cords or the rear speaker cords for connection as appropriate.

### Note 1

- If the car stereo has a blue lead (system control terminal), connect it to the blue lead (male) of this unit, without connecting anything to the red/white lead of this unit. If the car stereo does not

have a blue lead (system control terminal), connect the red/white lead or red lead of the car stereo to the red/white lead of the unit.

- The blue lead of a PIONEER car stereo to be connected to the unit may have an auto-antenna terminal. If it does, it cannot be connected to the blue lead (system control terminal) of the unit, so read the section on connections in the car stereo's owner's manual. If no sound comes from the speakers during the playing of a tape after they have been connected to the unit, connect the red/white or red lead of the car stereo to the red/white lead of the unit.



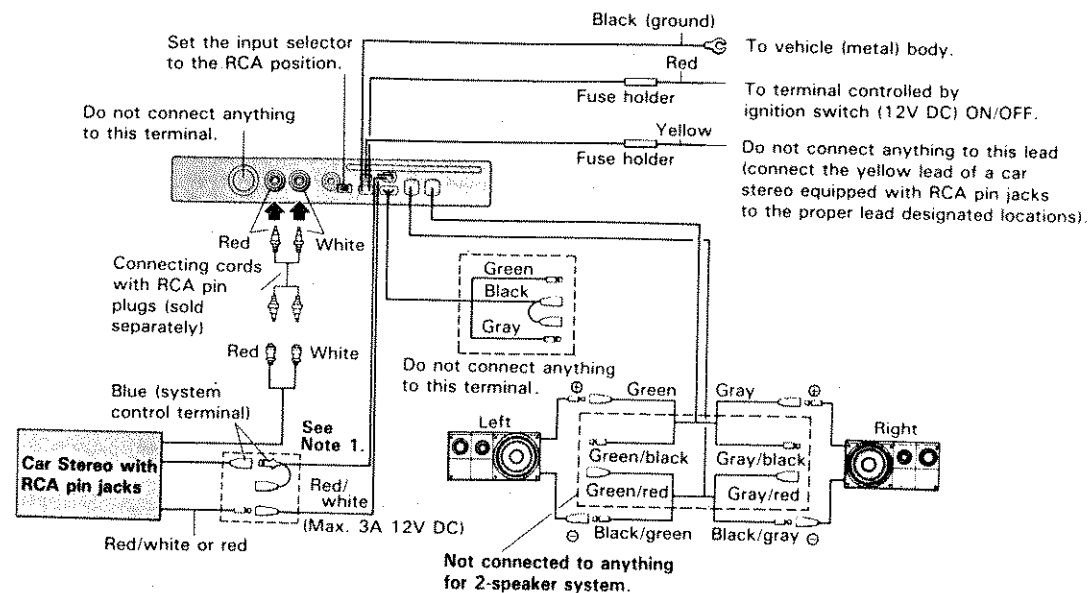
## BP-650 (2-Speaker System)

### When Combined with a Car Stereo with RCA Pin Jacks

#### Note 1

- If the car stereo has a blue lead (system control terminal), connect it to the blue lead (male) of this unit, without connecting anything to the red/white lead of this unit. If the car stereo does not have a blue lead (system control terminal), connect the red/white lead or red lead of the car stereo to the red/white lead of the unit.

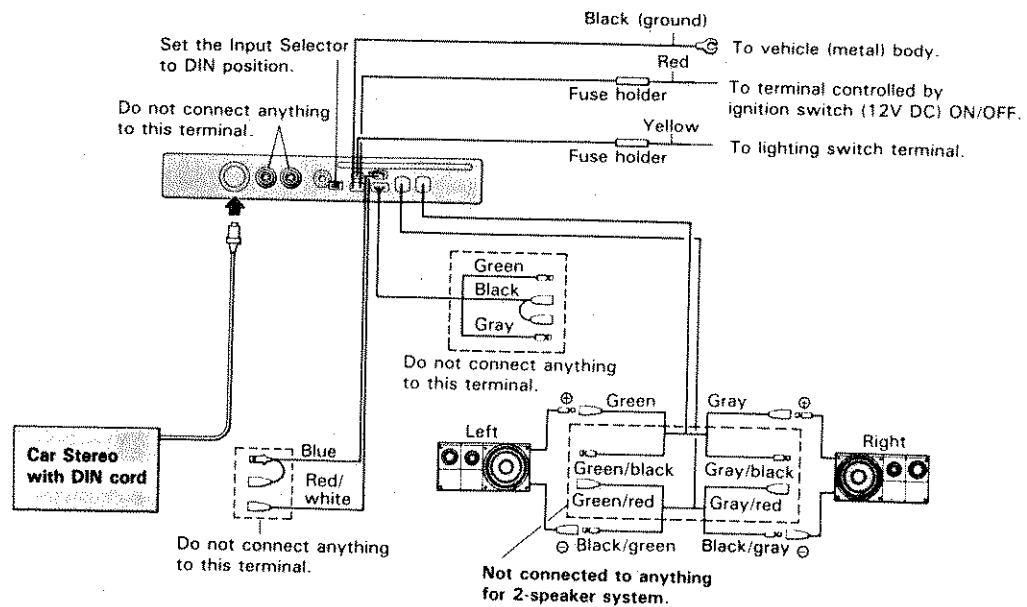
- The blue lead of a PIONEER car stereo to be connected to the unit may have an auto-antenna terminal. If it does, it cannot be connected to the blue lead (system control terminal) of the unit, so read the section on connections in the car stereo's owner's manual. If no sound comes from the speakers during the playing of a tape after they have been connected to the unit, connect the red/white or red lead of the car stereo to the red/white lead of the unit.





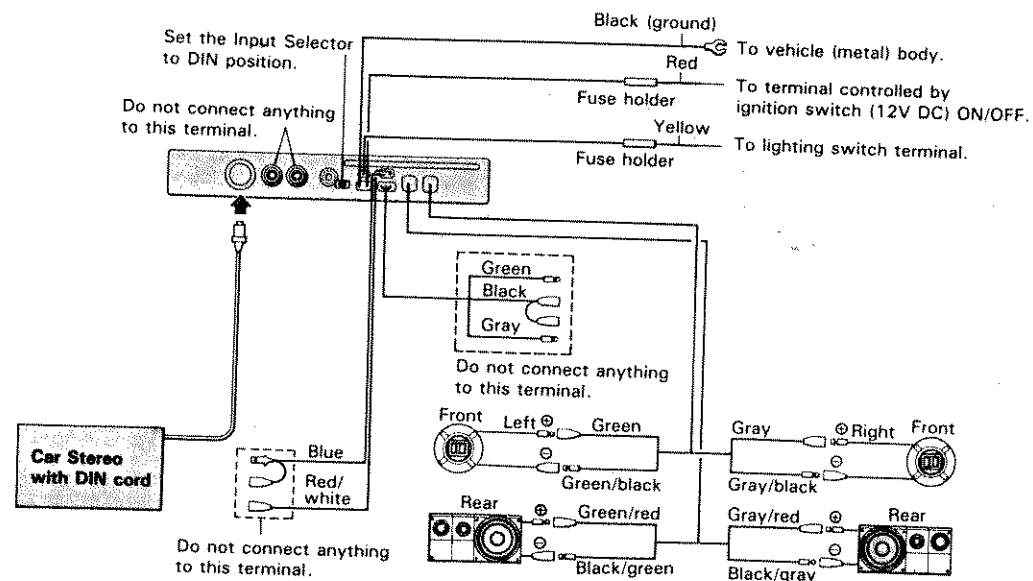
## BP-650 (2-Speaker System)

When Combined with a Car Stereo with DIN cord



## When Combined with a Car Stereo with DIN cord

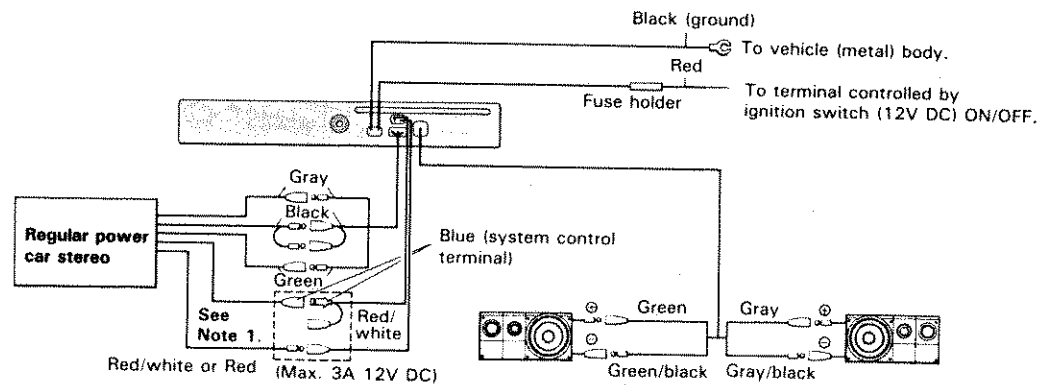
- When using the BP-880 in a 2-speaker system, use either the front speaker cords or the rear speaker cords for connection as appropriate.



**Note 1**

- If the car stereo has a blue lead (system control terminal), connect it to the blue lead (male) of this unit, without connecting anything to the red/white lead of this unit. If the car stereo does not have a blue lead (system control terminal), connect the red/white lead or red lead of the car stereo to the red/white lead of the unit.

- The blue lead of a PIONEER car stereo to be connected to the unit may have an auto-antenna terminal. If it does, it cannot be connected to the blue lead (system control terminal) of the unit, so read the section on connections in the car stereo's owner's manual. If no sound comes from the speakers during the playing of a tape after they have been connected to the unit, connect the red/white or red lead of the car stereo to the red/white lead of the unit.



## Installation

- Be sure to use the parts supplied and to install the unit securely. If parts other than those supplied (specified) are used, they may loosen or damage internal parts.
  - Be sure to install the unit in places where the driver is not bothered and where there is no danger of passengers being injured in case of sudden stops.
  - Be sure to consult your dealer before making any holes in the car.
  - Make sure to take off the (-) side connector on the car battery to prevent short circuits.
- When you finish the installation, be sure to make one more check to be sure everything is done correctly. Reinstall all car parts that were removed. Reconnect the negative battery cable.

### Installation Cautions

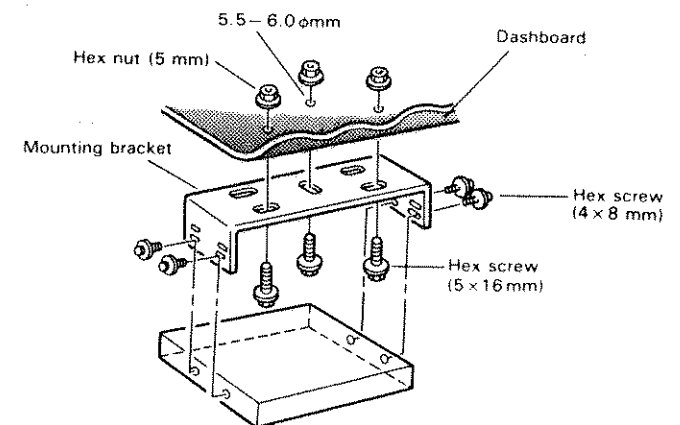
This unit features a built-in high-power amplifier, so when installed in a stacked configuration with a separately sold car stereo, be sure to always position this unit on the top. When this unit is installed below a car stereo, the heat generated can cause damage to cassette tapes.

#### Example Installation

Car Stereo
<b>NOT RECOMMENDED</b>
This Unit

This Unit
<b>RECOMMENDED</b>
Car Stereo

### Installation under the Dashboard



# Precautions

- Set air conditioning or heating for suitable temperature because there may be extreme changes in temperature during summer or winter.
- Use this function when driving if outside noise is too loud.
- Enough care must be taken against battery overdischarge caused by long operation of the set at a high sound level when the engine is not running or is idling.
- Replace fuses only with the types stipulated on the fuse holder.
- Dust the heat sinks occasionally so that they will not become clogged.

## In case of trouble

When the unit does not operate properly, contact your dealer or the nearest authorized PIONEER Service Station.

# Specifications

## BP-880

Power source	14.4V DC (10.8 — 15.6V allowable)
Grounding system	Negative type
Max. current consumption	7A
Dimensions (chassis size)	178(W) × 25(H) × 150(D) mm
(overall dimensions)	178(W) × 25(H) × 163(D) mm
Weight	1.0kg
Maximum power output	20W × 4 (EIAJ)
Continuous power output	10W × 4 (1% dist. at 1kHz)
Load impedance	4Ω (4 — 8Ω allowable)
Frequency response	25 — 30,000Hz (±3dB)
Signal-to-noise ratio	85dB (IEC-A network, at 1W)
Distortion	0.5% (at 1.5W, 1kHz)
Input level	DIN: 40—200mV/20kΩ RCA: 0.2 — 1V/10kΩ BOOSTER: 1.2 — 6V/24Ω
Equalization frequency	60Hz, 125Hz, 250Hz, 500Hz, 1kHz, 3.5kHz, 10kHz
Equalization range	±12dB

## Note:

Specifications and the design are subject to possible modification without notice due to improvements.

### BP-650

Power source	14.4V DC (10.8 — 15.6V allowable)
Grounding system	Negative type
Max. current consumption	4A
Dimensions (chassis size)	178(W) × 25(H) × 135(D) mm
(overall dimensions)	178(W) × 25(H) × 148(D) mm
Weight	0.9kg
Maximum power output	25W × 2 (EIAJ)
Continuous power output	16W × 2 (1% dist. at 1kHz)
Load impedance	4Ω (4 — 8Ω allowable)
Frequency response	20—30,000Hz (±3dB)
Signal-to-noise ratio	85dB (IEC-A network, at 1W)
Distortion	0.3% (at 1.5W, 1kHz)
Input level	DIN: 40—200mV/20kΩ RCA: 0.2 — 1V/10kΩ BOOSTER: 1.2 — 6V/24Ω
Equalization frequency	60Hz, 125Hz, 250Hz, 500Hz, 1kHz, 3.5kHz, 10kHz
Equalization range	±12dB

#### Note:

Specifications and the design are subject to possible modification without notice due to improvements.

### BP-450

Power source	14.4V DC (10.8 — 15.6V allowable)
Grounding system	Negative type
Max. current consumption	4A
Dimensions (chassis size)	178(W) × 25(H) × 135(D) mm
(overall dimensions)	178(W) × 25(H) × 148(D) mm
Weight	0.8kg
Maximum power output	25W × 2 (EIAJ)
Continuous power output	16W × 2 (1% dist. at 1kHz)
Load impedance	4Ω (4 — 8Ω allowable)
Frequency response	20—30,000Hz (±3dB)
Signal-to-noise ratio	85dB (IEC-A network, at 1W)
Distortion	0.3% (at 1.5W, 1kHz)
Input level	3V/24Ω
Equalization frequency	60Hz, 125Hz, 250Hz, 500Hz, 1kHz, 3.5kHz, 10kHz
Equalization range	±12dB

#### Note:

Specifications and the design are subject to possible modification without notice due to improvements.